

RF Exposure Evaluation

REQUIREMENT

KDB 447498 D04 Interim General RF Exposure Guidance v01

Appendix B Exemptions for Single RF Sources

B.3 MPE-based Exemption and B.4 SAR-based Exemption:

$$P_{\text{th}} (\text{mW}) = ERP_{20 \text{ cm}} (\text{mW}) = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

$$P_{\text{th}} (\text{mW}) = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B.2})$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1).

TEST RESULT

☒ Passed

☐ Not Applicable

Band	Conducted Maximum Tune-up (dBm)	duty cycle	AV power (dBm)
EGPRS850	33.00	12.5%	23.97
EGPRS1900	31.00	12.5%	21.97
LTE Cat M band 2	23.00	100%	23.00
LTE Cat M band 4	23.00	100%	23.00
LTE Cat M band 5	23.00	100%	23.00
LTE Cat M band 12	23.00	100%	23.00
LTE Cat M band 13	23.00	100%	23.00
LTE Cat NB band 2	23.00	100%	23.00
LTE Cat NB band 4	23.00	100%	23.00
LTE Cat NB band 5	23.00	100%	23.00
LTE Cat NB band 12	23.00	100%	23.00
LTE Cat NB band 13	23.00	100%	23.00

Band	AV power (dBm)	Ant Gain (dBi)	ERP (dBm)	ERP (mW)	Minimum Separation Dis. (cm)	Pth (mW)
LTE Cat M band 2	23.00	-3.00	17.85	60.954	2.5	66.526
LTE Cat M band 4	23.00	-3.00	17.85	60.954	2.5	68.932
LTE Cat M band 5	23.00	-3.00	17.85	60.954	2.0	66.098
LTE Cat M band 12	23.00	-3.00	17.85	60.954	2.0	71.765
LTE Cat M band 13	23.00	-3.00	17.85	60.954	2.0	68.068
LTE Cat NB band 2	23.00	-3.00	17.85	60.954	2.5	66.526
LTE Cat NB band 4	23.00	-3.00	17.85	60.954	2.5	68.932
LTE Cat NB band 5	23.00	-3.00	17.85	60.954	2.0	66.098
LTE Cat NB band 12	23.00	-3.00	17.85	60.954	2.0	71.765
LTE Cat NB band 13	23.00	-3.00	17.85	60.954	2.0	68.068
EGPRS850	23.97	-3.00	16.82	48.084	2.5	66.526
EGPRS1900	21.97	-3.00	18.82	76.208	2.5	90.444

Note:

The safety distance for body exposure assessment is 2.5cm.